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Female but not too feminine. Perceptions of female entrepreneurs and their ventures: the role of gender and feminine adornments

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ABSTRACT

Using an experimental approach, we examine how gender and feminine adornments impact stakeholders' spontaneous perceptions of entrepreneurs. Although previous research shows that female entrepreneurs face negative stereotypes and prejudice, we find that compared to their male counterparts, female entrepreneurs and their ventures are no longer viewed less favourably and are even generating more positive perceptions and funding decisions. Yet when their feminine appearance is accentuated by feminine adornments (i.e. makeup, jewellery, nail polish), perceptions are less favourable. The negative effect of feminine adornments is less pronounced among professionals with investment experience. Our findings contribute to research on occupational gender roles and on the impact of appearance by highlighting the importance of going beyond a dichotomous gender perspective. Gender in and of itself does not necessarily convey lower evaluations, and in addition to gender, the degree of femininity should also be considered.

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Introduction

Inequality between men and women is well documented in the field of entrepreneurship. For example, compared to their male counterparts, women are underrepresented, more likely to own smaller firms, and less likely to raise equity funding (Elam et al. 2021; Guzman and Kacperczyk 2019; Quigley and Patel 2022). This inequality is linked to the many challenges women face in entrepreneurial careers, including gender-based stereotyping (Olu-Owolabi et al. 2020). As explained by social role theory and gender role congruity theory (Eagly 1987; Eagly and Karau 2002), female entrepreneurs may not be seen as corresponding to the masculine characteristics associated with entrepreneurship (Balachandra et al. 2019; Gupta et al. 2009). This may result in being perceived as less legitimate and evaluated less favourably (Edelman et al. 2018; Guzman and Kacperczyk 2019; Khurana and Lee 2022). Such bias in perceptions and evaluations can lead to discrimination against female entrepreneurs by various stakeholders (Moreira et al. 2019; Osei and Zhuang 2020). Furthermore, such a bias is more likely to operate when decisions are made in contexts of uncertainty and limited information (Heilman, Martell, and Simon 1988). This can be particularly true in a variety of entrepreneurial situations, such as crowdfunding or microlending, where investors may be making investment decisions with only little information. Limited information and ambiguity, therefore, provide a facilitative environment for gender bias.

The aforementioned gender representations and their consequences for women entrepreneurs appear to be subject to societal changes. Recent research provides evidence of a shift in gender-based stereotypes and occupational gender roles (Elam et al. 2021). This societal shift can serve to decrease the bias women face when entering careers traditionally considered as masculine (Charlesworth and Banaji 2021). Stakeholders' perceptions are also changing, becoming more prone to favourably perceiving female entrepreneurship (Balachandra et al. 2019; Figueroa-Armijos and Berns 2021; Johnson, Stevenson, and Letwin 2018; Quigley and Patel 2022).

Beyond gender, the degree of femininity of a female entrepreneur's appearance may also impact stakeholders' spontaneous perceptions and decisions, as research in social psychology has largely documented that attitudes and judgements towards individuals are influenced by factors relating to physical appearance. Moreover, studies have emphasized that physical appearance may be key in the work environment. Physical attractiveness, for example, has been found to matter in competence assessments (Jackson, Hunter, and Hodge 1995), hiring (Hosoda, Stone-Romero, and Coats 2003), compensation (Frieze, Olson, and Russell 1991) and, in the context of entrepreneurship, funding decisions (Brooks et al. 2014). Consequently, to establish legitimacy, individuals often seek to achieve the 'right look' at work (Martins et al. 2020). It has also been suggested that physical appearance in the work environment is especially important for women. For instance, scholars studying women in organizations have argued that 'dress and appearance are more important to women than to men in part because women in male-dominated organization have a greater need for the legitimacy, credibility, acceptance and self-confidence that dress can convey' (Rafaeli et al. 1997, 12). These elements, along with those on gender stereotyping and on decision-making under limited information, raise the question of the impact of feminine adornments that accentuate feminine appearance (e.g. makeup, jewellery, or nail polish) on how women are perceived, especially in entrepreneurship.

In this study, we explore how gender and adornments that accentuate feminine appearance shape perceptions of women in entrepreneurship. To do so, we use an experimental approach set in a gender-neutral sector. In a first study, we examine whether female entrepreneurs and their ventures are perceived differently compared to male entrepreneurs and their ventures. We then focus on the role of feminine adornments in shaping perceptions of female entrepreneurs. More precisely, in a second study, we examine whether wearing feminine adornments changes how female entrepreneurs and their ventures are perceived and how this impacts subsequent funding decisions. A third study, aimed to confirm the results of the first two, surveyed a sample of professionals with investment experience. To the best of our knowledge, to date, no study has examined the role of feminine adornments in the context of entrepreneurship.

The remainder of this article is organized as follows: First, we briefly discuss the challenges to female entrepreneurship and its evaluation by stakeholders, within the theoretical framework of social role theory and gender role congruity theory. Next, we examine the societal changes in occupational gender roles and their impact on evaluation of gender and feminine appearance in female entrepreneurship, based on which we develop our first set of hypotheses. A presentation of the methodology of our first study and its results follows. We then look beyond gender and examine the role of adornments in the perception of women entrepreneurs, based on which we develop our second set of hypotheses. We present the methodology of our second and third studies and their respective results. We conclude with a discussion of the results of all three studies, identify some limitations, and offer our conclusions, implications, as well as future research avenues.

Evaluation of female entrepreneurs

Significant differences between male- and female-owned businesses remain, be it in terms of size, number of employees, or sector (Elam et al. 2021; Jennings and Tonoyan 2022; Quigley and Patel 2022). Women are more likely to own smaller firms, have fewer employees, remain concentrated in services or low-growth sectors, and be underrepresented in high-growth sectors such as manufacturing, finance, insurance, and technology (Gupta, Wieland, and Turban 2019; Hait 2021). This under-

representation is linked to the many challenges women face in entrepreneurial careers such as work-family conflict (Santos, Marques, and Ferreira 2018; Zhang and Zhou 2019), difficulty securing resources (Kanze et al. 2018; Moreira et al. 2019), lack of access to business advisors (Goorha 2021), lower human capital (Venkatesh et al. 2017), perceived barriers (Shinnar, Giacomini, and Janssen 2012), and gender-based stereotyping (Moreira et al. 2019; Olu-Owolabi et al. 2020; Osei and Zhuang 2020).

Entrepreneurship has typically been associated with masculine traits and behaviours such as aggressiveness, autonomy, risk taking, innovativeness, proactiveness, self-reliance and confidence (Anglin et al. 2018; Malström et al. 2020), hence framing entrepreneurship as a 'masculine' career (Balachandra et al. 2019; Gupta et al. 2009). This masculine view of entrepreneurship is often reinforced by the media (Achtenhagen and Welter 2011) in that female entrepreneurs are significantly underrepresented in the media discourse and when they are discussed, articles often stress traditional gender roles being incongruent with entrepreneurship. Such gender-based representations can result in bias against female entrepreneurs, who are often perceived as less legitimate and not evaluated as favourably as men by stakeholders. This bias might operate when interacting with investors, suppliers, or customers (Heilman and Chen 2003). For instance, Edelman et al. (2018) find that male angel investors perceive women-led ventures as less legitimate. Research also shows that lenders, potential lenders, and technology licencing officers prefer male-owned start-ups (Bigelow et al. 2014; Brooks et al. 2014; Shane et al. 2012). Kanze et al. (2018) also show that investors often ask female entrepreneurs different questions compared to their male counterparts. While male entrepreneurs are asked promotion-focused questions, their female peers are asked prevention-focused questions, hindering their ability to raise capital. In another study, male entrepreneurs were 60% more likely to succeed in a pitch competition and secure investment than were female entrepreneurs, even when the content of the pitch was the same (Brooks et al. 2014). Also, Khurana and Lee (2022) analysed pitches on the television show *Shark Tank* and found that, although male judges reacted to female entrepreneurs with more positive sentiment, this was less likely to result in a final deal (i.e. funding). These findings are consistent with figures related to funding outcomes indicating that female entrepreneurs are 63% less likely to raise equity funding as compared to their male counterparts (Guzman and Kacperczyk 2019). Likewise, only 2.3% of venture capital goes to female entrepreneurs and, due to this funding disparity, only 2% of women-owned start-ups generate \$1 million or more, while male entrepreneurs are 3.5 times more likely to achieve that number (Goorha 2021).

Bias against female entrepreneurs is also likely to occur because resource providers (e.g. consultants, lenders, suppliers, customers) must frequently make decisions in contexts of uncertainty and based on limited information (Heilman, Martell, and Simon 1988). With less information, the need for inference increases, leading to higher likelihood of biased perceptions. Consistently, smaller amounts of information available to evaluators are reported to be related to bias in evaluative judgements (Davison and Burke 2000; Heilman et al. 2004; Tosi and Einbender 1985). Therefore, limited information and the resulting ambiguity provide a facilitative environment for gender bias (Niava & Gutek, 1980).

Social role theory and gender role congruity theory

Bias against female entrepreneurs and its detrimental outcomes can be explained by the propositions of social role theory and gender role congruity theory. Social role theory (Eagly 1987) suggests that different occupations tend to be framed as predominantly feminine or masculine. Gender stereotypes are not only descriptive, denoting differences in how men and women actually are, but also prescriptive, denoting norms regarding behaviours that are considered suitable for each, namely how men and women 'should' behave (Heilman 1983). In most societies, entrepreneurship is considered to be a masculine occupation (Gupta et al. 2009; Rugina and Ahl 2024) that requires masculine traits and behaviours such as aggressiveness, autonomy, risk-taking, innovativeness,

proactiveness, self-reliance, and confidence (Anglin et al. 2018; Malström et al. 2020). Indeed, agentic characteristics are widely viewed as important for entrepreneurial success, contributing to the notion that entrepreneurship is a 'masculine' career (Balachandra et al. 2019). Gender role congruity theory (Eagly and Karau 2002) complements social role theory by proposing that individuals who engage in a role incongruent with their gender are likely to face negative bias. An entrepreneurial career would be socially perceived as incongruent with female gender roles leading to possible bias against female entrepreneurs. Indeed, Lee and Huang (2018) found that female-led ventures are penalized relative to male-led ventures as a result of role incongruity, or a perceived lack of fit between female stereotypes and expected personal qualities required of entrepreneurs. When women pursue entrepreneurship, this may be perceived as incongruent with their socially prescribed gender role.

The theories mobilized in this paper, have a dynamic aspect related to potential social changes. In short, the prevalence of stereotypes and bias can change alongside societal changes. Social role theory (Eagly 1987) suggests that when changes in the roles that men and women play in the world occur, stereotypes about men and women will shift as well (Eagly and Wood 2012; Koenig and Eagly 2014). These societal changes regarding gender role stereotypes can serve to decrease the bias women face when entering careers traditionally considered as masculine (Charlesworth and Banaji 2021). Entrepreneurship can thus potentially become less incongruent with female gender roles.

Societal changes

While the above-mentioned studies identify important barriers for female entrepreneurs, some recent research identifies societal changes in gender typecasting of different occupations with women making continued inroads into traditionally male-dominated roles (Croft, Schmader, and Block 2015) and the number of women occupying leading organizational positions growing significantly. Female entrepreneurship has more than doubled from 1.5 million to over 3.4 million globally (Cardella, Hernández-Sánchez, and Sánchez-García 2020). Women are approaching parity with men in new start-up activity and are increasingly involved in high-growth entrepreneurship (Elam et al. 2021). In early-stage entrepreneurial activity, 1 in 5 women surveyed globally reported an intention to start a business within the next three years compared to 1 in 4 for men (Elam et al. 2021). At the same time, societal norms regarding sharing household duties in dual-career households are shifting as well (Geiger 2016).

Perceptions of female entrepreneurs and their ventures are also changing. When it comes to funding, Balachandra et al. (2019) found that being a woman does not diminish investor interest. Furthermore, even in cultures that are low in gender egalitarianism, women borrowers were funded to a greater level compared to men (Quigley and Patel 2022). This trend has also been identified in the microlending context (Figueroa-Armijos and Berns 2021) with microloans being more likely to go to women, and in crowdfunding (Johnson, Stevenson, and Letwin 2018) where women were found to have an advantage. More generally, social and occupational gender stereotypes seem to be declining. In a study spanning over a decade (2007 through 2018) and covering more than 1.4 million data points, Charlesworth and Banaji (2021) found both implicit and explicit gender stereotypes to have weakened by 13–19% suggesting a slow but steady change in perceptions regarding women's social and occupational roles. Ridgeway (2001, 639) adds that the 'evaluative content of gender stereotypes has changed in recent years, with perceptions of women becoming more positive'.

Hypotheses related to gender

Given the adaptive aspect of social norms as proposed by social role theory and gender role congruity theory (Eagly 1987; Eagly and Karau 2002), namely that stereotypes and bias can change as social norms shift, alongside the indications that social norms are changing (Charlesworth and Banaji 2021), as well as other evidence regarding the shift in how women are perceived in the public sphere (Charlesworth and Banaji 2021; Croft, Schmader, and Block 2015), we expect that female

entrepreneurs will not be more negatively perceived than their male counterparts. To assess whether occupational gender roles are indeed changing, we propose that:

H1: Female entrepreneurs will be rated as favourably as male entrepreneurs.

H2: Ventures led by female entrepreneurs will be rated to be as worthy of an investment as ventures led by their male counterparts.

Methodology of study 1 (Gender)

The design of Study 1 included the entrepreneur's gender (i.e. male vs. female) as a within-participants factor. The stimuli used consisted of posters incorporating several elements, including the entrepreneur, the name of his or her company (using a similar typeface across posters), the logo of a trade show, and an identical grey background (see [Appendix A](#)). The images of the entrepreneurs were selected employing a two-step process. The first step consisted of selecting (from stock-photo galleries) images of male and female characters who looked similar on several criteria whose potential influence (according to research in social psychology, e.g. DeShields, Kara, and Kaynak 1996) we wished to avoid. These criteria included age, physical attractiveness, ethnicity, posture, facial expression, dress style, and having no eyeglasses. Respectively, the selected images were of individuals aged roughly 35–39, of moderate attractiveness, Caucasian ethnicity, standing straight with arms crossed, smiling, and wearing dark-coloured business professional attire. We selected 14 images of men and 17 of women. The second step consisted of a pre-test that examined, for these 31 characters, actual perceptions relating to physical attractiveness and age (since these two factors are matters of subjective judgement). This pre-test was conducted online, on a sample of 40 Belgian participants (aged 20 to 80 years old, average age of 41) who were asked to rate the characters, presented in random order, on age and attractiveness. Attractiveness was rated using a 7-point scale ranging from 'not at all' to 'definitely', while age was estimated by selecting from 5-year age ranges (20–24, 25–29, 30–34, etc.). This allowed for the selection of images of two male and two female characters who were similar in terms of attractiveness (i.e. around 4.5 on the 7-point scale) and age (i.e. roughly 35–39; see [Table 1](#)). This process is consistent with the pre-test used by Brooks et al. (2014) to assess the attractiveness of the images presented in their study.

Study 1 presented the four characters as entrepreneurs in the hospitality industry. This industry was selected because, based on a pre-test, it was found not to be associated with either masculinity or femininity. The pre-test asked participants to indicate their perception of 15 randomly presented industries (e.g. education, tourism, healthcare, transportation) on a 7-point scale whose endpoints read 'rather masculine' and 'rather feminine' (the mean for the hospitality industry was 3.97).

Table 1. Descriptive statistics and ANOVA results of the pre-tests conducted to show equivalence between the characters used for the studies.

	Man 1		Man 2		Woman 1		Woman 2		Repeated measures ANOVA	
										
	Descriptive statistics		Descriptive statistics		Descriptive statistics		Descriptive statistics			
	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)	F	p
Age	3.30	(.91)	3.47	(.60)	3.20	(1.18)	3.45	(1.28)	.59	.622
Attractiveness	4.48	(1.06)	4.73	(1.11)	4.75	(1.30)	4.83	(.98)		

Each character was presented alongside his or her company name. The four company names used were unfamiliar to the participants, were of the same length, and were similar in terms of spontaneous liking and premium perception. This was examined using a different pre-test in which 30 participants were asked to indicate their feeling of familiarity, liking, and premium perception towards 37 randomly presented fictitious names using 7-point scales (the names selected had low familiarity and average liking, as well as average premium ratings).

The experiment was performed online, using Qualtrics software. Participants were asked to immerse themselves in a situation described as follows: *The EXP'HOTEL trade show has just taken place. This is an event that brings together companies in the hotel industry. Among these are four new companies ('start-ups'), whose respective founders have been invited to pose for a photo to create a poster presentation.* The first section examined participants' perceptions of the companies and their potential future success. For each of the four companies (presented randomly), participants answered seven evaluative items using a 7-point scale (with endpoints being: 'not at all' to 'definitely'). These items related to dimensions such as perceived trustworthiness, innovativeness, management, and performance (See [Appendix B](#) for item phrasing). This measure was based on previous studies examining the future potential of new companies (e.g. Baron, Markman, and Bollinger 2006; Thébaud 2015). The second section focused on participants' perceptions towards the company founder. For each of the four founders (presented randomly), participants were asked to answer six semantic differential scales (with opposite endpoints) relating to perceived competence, dominance, intelligence, warmth, honesty, and sympathy (See [Appendix B](#) for item phrasing). This measure was adapted from Fiske et al. (2018) and validated across a large body of literature in social psychology (Aaker 1997; Judd et al. 2005; Yzerbyt, Provost, and Corneille 2005). Also, examining participants' perceptions towards both the companies and their founders was justified considering previous research according to which angel investors rely on their feelings regarding both aspects to make their investment decision (Huang and Pearce 2015). Finally, the last section collected information on participants' age and gender.

Participants were recruited by one of the authors as well as graduate students in management, using invitations to participate via direct email and, especially, social media (e.g. Facebook). This survey distribution therefore consisted of convenience and snowball sampling methods since the people invited could invite others as well. Using social media as a platform to recruit study participants is prevalent and offers a low cost and fast way to recruit research subjects (Sibona, Walczak, and Baker 2020) producing similar results to other probabilistic methods such as random digit dialling telephone surveys (Rivers and Bailey 2009). A total of 178 Belgian participants completed the study (52% men, average age of 41 ranging from 20–80 years of age). For the different measures, results were analysed using paired-samples t-tests comparing perceptions of the entrepreneurs (male to female) and their respective ventures.

Results of study 1 (Gender)

Higher ratings for female entrepreneurs were found regarding the perception of the founders ($M = 4.97$, $SD = .82$ vs. $M = 4.71$, $SD = .83$; $t[186] = 5.98$; $p < .001$, $d^1 = .44$; satisfactory internal consistency for the six items evidenced by $\alpha > .87$, for both male and female entrepreneurs), failing to support Hypothesis 1 which postulated that female entrepreneurs would be rated as favourably as their male counterparts. In terms of perceived venture worth and potential future success, we merged the data for the seven items since they showed a high level of internal consistency ($\alpha > .87$, for both male and female entrepreneurs). Female-led (vs. male-led) ventures received higher ratings in terms of perceived financial worth and future success ($M = 4.24$, $SD = .98$, vs. $M = 4.00$, $SD = 1.01$; $t[186] = 4.99$, $p < .001$, $d = .37$). This fails to support Hypothesis 2 which postulated that ventures led by female entrepreneurs will be rated to be as viable as and worth as much as ventures led by their male counterparts (see [Table 2](#)).

Table 2. Study 1: Descriptive statistics and t-test results regarding the perceptions of the entrepreneurs and of the ventures' potential future success, as a function of the gender of the entrepreneur.

	Female		Male		Paired-samples T-tests			
	Descriptive statistics		Descriptive statistics					
	Mean	(SD)	Mean	(SD)	<i>t</i>	<i>df</i>	<i>p</i>	<i>d</i>
Entrepreneur	4.97	(.82)	4.71	(.83)	5.98	186	<.001	.44
Venture	4.24	(.98)	4.00	(1.01)	4.99	186	<.001	.37

Feminine adornments

Beyond gender, personal appearance also matters in impression formation (Burgoon, Manusov, and Guerrero 2021; Etcoff et al. 2011; Foschi 2000; Martins et al. 2020), especially professionally. Appearance has a powerful and immediate effect on how a person is perceived: 'In just fractions of a second, people come to remarkably similar conclusions about a person's attractiveness, aggression, likeability, trustworthiness, and competence' (Banchefsky et al. 2016, 93). The importance of appearance in the professional space was also noted by Cooper (2019) who suggested that among lawyers, individuals who do not conform to a specific dress code, might face implicit bias and microaggressions.

Appearance is believed to be more important for women than for men to establish legitimacy or credibility (Rafaeli et al. 1997). Pritchard, Mackenzie, Davey and Cooper (2019) coined the term 'aesthetic labour', which describes the added effort expected of women to achieve the 'right' look. This was also identified by Rafaeli et al. (1997) who found that women invested significant efforts in trying to dress 'appropriately' when at work. Similarly, media emphasize women's appearance as the 'primary source of women's capital' (Gill 2008, 42). Sheppard (1992) adds that women in organizations struggle with reconciling contradictory societal demands to 'be feminine' with organization demands to 'be business-like'. This is seconded by Wolf (1991, 12) who states that 'women who want to be successful in organizations must look attractive to gain visibility in a male-dominated business culture but must also not appear too feminine because then they may be perceived as sexual objects instead of professionals'.

This raises the question of feminine adornments, such as makeup, jewellery, or nail polish that accentuate a feminine appearance. Looking at research on occupations other than entrepreneurship, adornments could be considered as a disadvantage. For example, Kyle and Mahler (1996) found that women who wear makeup at work are considered less competent and autonomous compared to those without makeup, allegedly because the use of beauty products increases femininity, which is negatively correlated with high skills, proactiveness, and masculine roles. Guadagno and Cialdini (2007, 490) similarly found that 'women who use feminine impression management tactics fail to impress their supervisors as having the characteristics necessary for the job, [compared to] women who use masculine tactics, and this has implications for their career trajectories'. Banchefsky et al. (2016) found that women who had a feminine appearance were deemed less likely to be scientists. The authors find that some women in the so-called 'hard' fields of science – technology, engineering, and mathematics (STEM) – intentionally minimize their feminine appearance. Women in STEM fields report feeling unable to represent themselves in a stereotypically feminine manner (e.g. wearing a skirt) because they are concerned that they will be considered unsuitable for a STEM career (Hewlett et al. 2008). Hammers (2006), in her analysis of female portrayals on popular television, suggested that an overly feminine appearance for a woman is associated with being an intellectual 'lightweight', or with incompetence. The importance and potential impact of appearances was found to matter across genders.²

However, counter to the above cited literature, other studies suggest that accentuating a feminine appearance contributes to positive perceptions. Specifically, several accounts can be

found for the positive impact of wearing makeup or accessories (e.g. jewellery) on ratings related to competence and performance (Aguinaldo and Peissig 2021; Etcoff et al. 2011; Klatt, Eimler, and Krämer 2016; Tommerup and Furnham 2019). Etcoff et al. (2011) suggested that this relates to a 'halo effect', which equates beauty with positive value and goodness, reporting that women who wear makeup receive higher rankings of facial attractiveness, which, in turn, has a significant positive effect on judgements of competence and trustworthiness. Tsankova and Kappas (2016) suggest that makeup may indirectly impact perceptions through signalling attention to detail and corresponding greater potential competence. More generally, this could be in line with works suggesting a shift in societal norms regarding female entrepreneurship and its evaluation by stakeholders (see above). These shifts might thus also concern the evaluation/perception of femininity. A feminine appearance can contribute to positive perceptions of competence and trustworthiness (Aguinaldo and Peissig 2021; Etcoff et al. 2011; Klatt, Eimler, and Krämer 2016; Tommerup and Furnham 2019) and women who wear makeup receive higher rankings of facial attractiveness, which, in turn, has a significant positive effect on judgements of competence and trustworthiness. Accentuating one's femininity through feminine adornments could therefore also be assumed to positively influence stakeholders' perceptions, or at least not negatively. In the next section, we develop our hypotheses.

Hypotheses related to feminine adornments

As discussed above, shifts in social norms might have implications for how a feminine appearance is perceived. The fact that a female entrepreneur wears feminine adornments could be expected to positively impact, or at least not negatively impact, how she and her venture are perceived, as well as positively, or at least not negatively, influence subsequent funding decisions. We therefore hypothesize that:

H3: Female entrepreneurs wearing feminine adornments will be rated as favourably as those not wearing feminine adornments.

H4: Ventures of female entrepreneurs wearing feminine adornments will be rated as being as worthy of investment as the ventures of those not wearing feminine adornments.

H5: Ventures led by female entrepreneurs wearing feminine adornments will receive as much funding as the ventures led by those not wearing feminine adornments.

Methodology of study 2 (Feminine adornments)

Study 2 involved the same two-level within-participants design as study 1. However, its independent variable consisted of the presence (vs. absence) of feminine adornments among the female entrepreneurs. The posters presented to study participants were similar to those used in Study 1, except for the images of the entrepreneurs. Study 2 used four female characters, which included the two female characters used in Study 1 as well as two new characters selected using the same process performed in Study 1 (ensuring similar ratings on physical attractiveness and age). For each of the four female characters, a modified version was generated by adding feminine adornments including makeup (blush and lipstick), nail polish, and jewellery (necklace and earrings) resulting in eight posters (See [Appendix C](#)).

The procedure in Study 2 was similar to that used in Study 1, except for two aspects. The first aspect related to the posters presented to participants. Like in Study 1, participants were presented with four posters in random order, two with feminine adornments and two without. Because the manipulation was carried out for the same four characters (See [Appendix C](#)), which two of the four characters had feminine adornments was reversed across study participants. This means that the first

half of the sample viewed images 1 and 3 (without adornments) and images 6 and 8 (with adornments). For the second half of the sample the images with adornments were reversed, first viewing images 2 and 4 (with adornments) and then images 5 and 7 (without adornments). This process was chosen because the manipulation adding feminine adornments was carried out on the same characters (unlike in Study 1); doing so prevented the potential influence of other confounding variables. Presenting participants with the same characters, both with and without adornments, might have made them aware of the purpose of the study, potentially leading to ‘experimental demands effects’ (Dimofte 2010; Greenwald et al. 2002). Beyond evaluating the entrepreneur and her venture, Study 2 also included a behavioural measure, asking study participants to allocate funding. Participants were asked to imagine that they were investors and had to distribute €100,000 among the four start-ups, awarding each entrepreneur with an amount of money. Such a funding allocation task was used in prior research to assess the viability of new companies (Thébaud 2015).

Study 2 participants were recruited using the same methods as in Study 1. A total of 228 Belgian participants completed the study and were considered for the analyses (40% men, ranging from 20–75 years of age, average of 34 years). Paired-samples *t*-tests were used to examine the impact of the presence (vs. absence) of feminine adornments on the different dependent measures.

Results of study 2 (Feminine adornments)

Results reveal an effect of wearing feminine adornments on how the entrepreneurs and their companies are perceived (see Table 3). First, the absence of feminine adornments was associated with higher ratings regarding perceptions towards the founders themselves ($M = 4.84$, $SD = .90$, vs. $M = 4.62$, $SD = .87$, $t[227] = 4.68$, $p < .001$, $d = .31$; satisfactory internal consistency for the six items evidenced by $\alpha > .80$). Second, higher ratings were observed for the ventures founded by entrepreneurs without (vs. with) feminine adornments ($M = 4.38$, $SD = .89$, vs. $M = 4.18$, $SD = .88$; $t[227] = 4.53$, $p < .001$, $d = .30$; $\alpha > .84$ for the seven items involved). These findings fail to support Hypotheses 3 and 4. Consistently, results from the funding allocation task show that the entrepreneurs without feminine adornments were awarded higher amounts ($M = 27.54$, $SD = 8.43$, vs. $M = 22.46$, $SD = 8.43$, $t[227] = 4.54$, $p < .001$, $d = .30$), also failing to support Hypothesis 5.

Methodology of study 3 (Participants with investment experience)

A third study was conducted to examine whether the impacts of gender (i.e. Study 1) and feminine adornments (i.e. Study 2) on evaluators’ responses (i.e. perceptions towards the entrepreneurs, the ventures’ future success and worth, and funding decision) also hold for evaluators who are professionals with investment experience. Therefore, Study 3 tested all five research hypotheses on a sample exclusively composed of such professionals. This study used all posters of the first two studies (i.e. corresponding to the three types of entrepreneurs’ appearance). It thus consisted of a three-level within-participants design (i.e. male entrepreneurs, female entrepreneurs without adornments, female entrepreneurs with adornments). The procedure was identical to Study 2

Table 3. Study 2: Descriptive statistics and *t*-test results regarding the perceptions of the entrepreneurs and of the ventures’ potential future success, and regarding the funding allocation task, as a function of the presence of feminine adornments for female entrepreneurs.

	Without adornments		With adornments					
	Descriptive statistics		Descriptive statistics		Paired-samples T-tests			
	Mean	(SD)	Mean	(SD)	<i>t</i>	<i>df</i>	<i>p</i>	<i>d</i>
Entrepreneur	4.84	.90	4.62	.87	4.68	227	<.001	.31
Venture	4.38	.89	4.18	.88	4.53	227	<.001	.30
Funding	27.54	8.43	22.46	8.43	4.54	227	<.001	.30

Table 4. Study 3: Descriptive statistics and ANOVA results (also including pairwise comparisons) regarding the perceptions of the entrepreneurs and of the ventures' potential future success, and regarding the funding allocation task, as a function of the entrepreneur appearance (i.e. woman without feminine adornments, woman with adornments, men).

	Descriptive statistics		Repeated measures ANOVA				Pairwise comparisons	
	Mean	(SD)	<i>F</i>	<i>df</i>	<i>p</i>	η_p^2	Comparison	<i>p</i>
Perceptions of the entrepreneurs								
[1] Female (no adornments)	4.85	(1.05)	5.25	2.172	.006	.058	[1] vs. [3]	.004
[2] Female (adornments)	4.76	(1.10)					[1] vs. [2]	.968
[3] Male	4.56	(1.10)					[2] vs. [3]	.120
Perceptions of the ventures' potential future success								
[1] Female (no adornments)	4.30	(1.18)	6.13	2.172	.003	.067	[1] vs. [3]	.001
[2] Female (adornments)	4.24	(1.22)					[1] vs. [2]	1.000
[3] Male	4.03	(1.20)					[2] vs. [3]	.065
Funding allocation								
[1] Female (no adornments)	30.52	(16.23)	5.94	2.172	.003	.065	[1] vs. [3]	.014
[2] Female (adornments)	22.38	(14.21)					[1] vs. [2]	.018
[3] Male	22.10	(14.32)					[2] vs. [3]	1.000

(with reversing, across two equivalent groups of participants, which of the four women had feminine adornments), except that the two male entrepreneurs' posters were also included. Participants were presented with a total of six entrepreneurs, including four women (two without and two with feminine adornments) and two men. Study 3 included two minor changes compared to Study 2. First, in the funding allocation task, the total amount was increased in proportion to the number of entrepreneurs, resulting in 150.000€ (instead of 100.000€, which would have been less convenient to distribute equally among the six entrepreneurs). Second, the last section included additional questions regarding the profile of these professionals. The first of these questions aimed to verify that the participants had investment experience (a necessary criterion that had been specified in the invitation to participate). The following questions were intended to gather additional information about the participants' investor profile and background (see [Appendix D](#) for item phrasing). Study 3 participants were recruited by two means. First, several major business federations and organizations designed to help entrepreneurs were contacted and agreed to distribute the survey to their members. Second, a data collection company distributed the survey among professionals who were likely to have investing experience. Participants recruited through this panel were mostly French. This population can be considered very culturally similar to the Belgian French-speaking population (Hofstede 2001). This two-way recruitment process resulted in a sample of 87 participants for the analyses (58% men, ranging from 23–77 years of age, average of 45 years). All participants confirmed having investment experience (94% for personal investment purposes, and 6% on behalf of a company). The number of years of investment experience ranged from 1 to 40 years (1 to 10 years in 70% of cases), with an average of 11 years. 40% of participants reported having invested in a single company, 29% in two companies, 12% in three companies, and 7% in four companies (percentages for investments in higher numbers of companies were lower, with an average of 2.79). 69% of participants were holding a senior managerial or executive role in a company. Finally, the primary field of their education was management or economics for 47%, science, technology, engineering, or mathematics (STEM) for 10%, law for 3%, social sciences or humanities for 8%, and other fields for 31%. Repeated measures ANOVA were used to compare the impact of the three-level entrepreneurs' appearance on the different dependent measures.

Results of study 3 (Participants with investment experience)

The descriptive statistics as well as the results of the ANOVA and of the post hoc pairwise comparisons are presented in [Table 3](#). A significant effect was observed regarding how the entrepreneur was perceived ($F[2,172] = 5.25$, $p < .01$, $\eta_p^2 = .06^3$; satisfactory internal consistency for the six items

evidenced by $\alpha > .87$, for all three types of entrepreneurs' appearance), the perceived venture investment worthiness ($F[2,172] = 6.13$, $p < .01$, $\eta_p^2 = .07$; satisfactory internal consistency for the seven items evidenced by $\alpha > .91$, for all three types of entrepreneurs' appearance), and the funding allocation task ($F[2,172] = 5.94$, $p < .01$, $\eta_p^2 = .07$).

Focusing on the impact of the entrepreneurs' gender (i.e. male vs. female, like in Study 1) the pairwise comparisons indicated significantly higher ratings for female entrepreneurs (without feminine adornments) regarding the perception of the founder ($M = 4.85$, $SD = 1.05$, vs. $M = 4.56$, $SD = 1.10$, $p < .01$), the perceived venture's investment worthiness ($M = 4.30$, $SD = 1.18$, vs. $M = 4.03$, $SD = 1.20$, $p < .01$), and the funding allocation ($M = 30.52$, $SD = 16.23$, vs. $M = 22.10$, $SD = 14.32$, $p < .05$). These results relating to the first two measures are in line with Study 1's results (but not with Hypothesis 1 and 3 which assumed an absence of statistically significant difference) and show that the more favourable perceptions of female entrepreneurs also extend to the funding allocation measure. Regarding the impact of feminine adornments (like in Study 2) the pairwise comparisons show that higher funding amounts were given to female entrepreneurs without adornments ($M = 30.52$, $SD = 16.23$, vs. $M = 22.38$, $SD = 14.21$, $p < .05$), which is consistent with Study 2's results (but not with Hypothesis 5, which assumed an absence of difference). However, no significant difference emerged regarding how the entrepreneur was perceived ($M = 4.85$, $SD = 1.05$, vs. $M = 4.76$, $SD = 1.10$, $p = ns$) or how her venture was perceived ($M = 4.30$, $SD = 1.18$, vs. $M = 4.24$, $SD = 1.22$, $p = ns$). The latter results are, conversely, in line with Hypothesis 5 but not with Study 2's results (See [Table 4](#)).

Discussion

This study's aim was to examine whether evaluators' responses towards entrepreneurs and their ventures may differ depending on the gender of the entrepreneurs and, if female, on the presence of feminine adornments. It consisted of a series of three experimental studies presenting participants with entrepreneurs (and their respective start-ups) that varied according to the gender and, if female, the presence of feminine adornments. Study 1 focused on the impact of gender, Study 2 on the impact of feminine adornments, and Study 3 on the impact of both factors surveying professional evaluators with investment experience. These impacts were examined regarding the spontaneous perceptions of the entrepreneurs, the perceptions of the ventures' worth and future success, and the funding allocation among the different ventures.

Regarding the impact of gender, Study 1 results show that responses to entrepreneurs and their ventures are more *positive* in the case of female (vs. male) entrepreneurs. This finding is confirmed by Study 3, using a sample of evaluators with investment experience. This is in line with the identified changes in socially prescribed gender roles, as well as occupational gender roles (Charlesworth and Banaji 2021; Croft, Schmader, and Block 2015). The present research goes one step further by showing that being a woman may no longer undermine evaluators' responses and may even be associated with more positive perceptions and decisions.

Alongside the changing socially prescribed gender roles and occupational roles confirmed in Study 1, we expected (in Study 2) that feminine adornments would not be a disadvantage, in terms of how a female entrepreneur and her venture's investment worthiness would be perceived. Our results, however, run counter to the expected absence of significant effect in that wearing feminine adornments negatively impacted how a female entrepreneur and her venture were perceived, as well as subsequent funding decisions. Female entrepreneurs who wore feminine adornments (i.e. makeup, jewellery, nail polish), and their ventures, were rated less favourably compared to similar female entrepreneurs without feminine adornments. The entrepreneurs who did not wear feminine adornments were also awarded higher amounts of funding, contrary to our hypothesized relationships. Thus, whereas being a woman was an advantage in terms of perceptions regarding the entrepreneur and her venture, wearing adornments that accentuate femininity appears to be a disadvantage in evaluations of both the entrepreneur and her venture, as well as subsequent funding decisions. This finding was partially confirmed in Study 3 which surveyed individuals with

investment experience: more favourable responses towards the female entrepreneurs without (vs. with) adornments were also observed regarding the funding task. This mixed pattern of results in Study 3 could be explained by a methodological difference compared to Study 2. In Study 3, because participants were exposed to both male and female entrepreneurs, participants' attention may have been focused primarily on the gender of the entrepreneurs (which is a highly salient distinguishing characteristic that could be easily considered in the responses provided). In contrast, the fact that Study 2 included only women may have focused participants' attention on more specific characteristics (such as the presence of feminine adornments).

A potential explanation for the apparent contradiction between the fact that female entrepreneurs are positively perceived, but not when they accentuate their feminine appearance is offered by research in psychology. The appearance of women without feminine adornments might align with a more prototypical representation of female entrepreneurs in stakeholders' minds. A large body of research in social psychology and neuroscience about the impacts of facial prototypicality has consistently reported a preference for typical faces (vs. distinctive faces) that are more representative of the population (Damon et al. 2017; Morris and Wickham 2001; Potter and Corneille 2008; Rhodes and Tremewan 1996; Vokey and Read 1992). The typicality of physical appearance has even been found to positively affect trustworthiness judgements (Sofer et al. 2015, 2017; Todorov et al. 2015), which, in turn, are positively associated with funding campaign success, especially for female entrepreneurs (e.g. Duan et al. 2020). Reber, Schwarz, and Winkielman (2004) have put forth a processing fluency framework to explain these positive impacts: prototypical stimuli are more fluently processed, and this fluency (i.e. processing ease and speed), which is subjectively experienced as positive, consequently elicits positive affect (Trujillo, Jankowitsch, and Langlois 2014; Winkielman et al. 2006). This affective marker of fluency has received strong support in research and has even been evidenced by psycho-physiological findings. For example, facial electromyography data show that highly fluent stimuli are associated with stronger activity over the zygomaticus region (i.e. muscles associated with smiling, indicative of positive affect), but not with the activity of the corrugator region (i.e. muscles associated with frowning, indicative of negative affect; Winkielman and Cacioppo 2001). Research has also suggested that fluent stimuli are perceived as more credible (Parks and Toth 2006; Unkelbach 2007) and may be associated with a greater automatic activation of trust-related cognitions (Pleyers 2021). Furthermore, prototypical stimuli are not only fluent but also feel subjectively familiar (Park, Shimojo, and Shimojo 2010; Rhodes, Halberstadt, and Brajkovich 2001), and familiar stimuli tend to be treated positively, especially when it comes to faces (Park, Shimojo, and Shimojo 2010). Drawing on this body of research, it is possible that Study 2 findings were influenced by the fact that female faces without feminine adornments were perceived as being more prototypical of women in everyday life, and even in the field of management or entrepreneurship, where a trend towards less formal appearance has been observed in recent years (Sharma and Grant 2011).

Limitations

A first limitation of our research is the issue of external validity. Few investors would consider investing in a venture solely based on the limited information provided in our study, which included only the industry (pretested as gender neutral), company name, and image of the entrepreneur. It may be argued that including a brief description about the start-ups and their founders might have been useful information. However, with the present study aiming to examine spontaneous perceptions specifically, adding additional information about the entrepreneurs (such as past entrepreneurial experience and/or past success, educational attainment, etc.) might have clouded our ability to study spontaneous perceptions based on gender and appearance (i.e. feminine adornments) only. We sought to mitigate this external validity to a certain extent by conducting the third study which surveyed individuals with investment experience. Future studies could examine how additional information about the entrepreneur him or herself interacts with spontaneous perceptions.

Another limitation of this research relates to the images used in our experiments differing in aspects other than gender. While all images were selected according to several key factors (i.e. specific age range, average attractiveness, similar posture, clothing style, facial expression, ethnicity, and having no eyeglasses), the images were of different people, and thus inevitably, may have differed on other aspects. While such differences allowed for the images to be clearly seen as separate individuals, the potential influence these differences may have had on participants' perceptions cannot be ruled out.

A third limitation is that data was collected in a single cultural context (i.e. French-speaking Belgian and French participants), which may limit generalizability to other societies or cultures. Belgium and France rank relatively high on gender egalitarianism (World Economic Forum 2020) and have an intermediate score on Hofstede's (2001) masculinity dimension, which may have impacted our findings in Study 1. However, the negative influence we identify in Study 2 May be even stronger in countries ranking lower on gender egalitarianism. Replicating our experiments in other nations with lower gender egalitarianism and higher masculinity scores may provide valuable new information.

A final limitation is due not the fact that all three studies employed a within-subjects designs. This approach is especially susceptible to assimilation effects and/or contrast effects. Future research should consider conducting between-subjects experiments to verify our findings when multiple experimental manipulations are not rated in a comparative format.

Contributions, implications and future research avenues

Academics, practitioners, and policy makers have given significant attention to the intersection of entrepreneurship and gender. We show that, while gender-based bias might be diminishing, appearance still matters in shaping perceptions of female entrepreneurs. By doing so, we contribute to the existing literature in four ways. First, we contribute to the nascent literature stream on changing societal norms that challenges previous findings suggesting that women entrepreneurs face negative stereotypes (Liñan, Jaén, and Rodríguez 2024). Perceptions of female entrepreneurs by stakeholders appear to be changing and being female might even be an advantage. Second, our study is the first to show that wearing feminine adornments is associated with less positive reactions. This result challenges prior research suggesting that professional women are viewed more favourably when they accentuate their feminine appearance, compared to those who do not (Etcoff et al. 2011). Norms of female adornments likely vary across sectors and occupations, but in entrepreneurship, while being a woman might be an advantage, accentuating one's feminine appearance may not be. Recent work in social psychology and neurosciences about prototypical representations offers a potential explanation for this apparent contradiction: women who do not wear feminine adornments might be more prototypical representations of female entrepreneurs. Indeed, Swail and Marlow (2017) point to the dissonance between feminine identities such as 'wife' and 'mother' and those of the prototypical entrepreneur. Third, we confirm the usefulness of the adaptive aspects of social role theory, with gender stereotypes shifting when changes in the roles that men and women play in the world occur. Fourth, our work suggests that it might be too restrictive to consider female gender as a universal characteristic and that factors that modulate the degree of femininity also need to be taken into consideration, thereby showing the limitations of dichotomous views of gender roles.

Our work has two practical implications. First, the insights from our results can help women decide how they want to present themselves. Given the importance of funding for starting new businesses and growing existing ones, women's ability to secure funding is imperative. Our results suggest that by managing their appearance female entrepreneurs can impact how they are perceived as well as their ability to secure funding. Women may want to develop an awareness of how personal appearance can help them shape others' impressions of their own competence and of their ventures' potential. At least in certain contexts (e.g. gender-neutral sectors), female entrepreneurs would be advised not to put time, money, or effort into feminine adornments. Female entrepreneurs who struggle with the decision on how to present themselves and whether to wear adornments when they interact with stakeholders like investors, customers, or suppliers, might welcome this insight.

Our research can also offer insights to investors as to the potential impact implicit bias can have on their judgement and evaluation of entrepreneurs or their ventures. Sensitizing investors to their own implicit bias could potentially reduce the latter. Evidence from studies in human resource management encourages hiring managers to evaluate resumes without names that could identify an applicant's gender, to reduce gender bias in selection decisions (Isaac, Lee, and Carnes 2009). Investors may want to use a similar approach by hiding, to the extent possible, the identity of the entrepreneurs they are evaluating to reduce gender bias. More generally, any mechanism implemented to reduce gender bias among investors would be in their best interest because it would prevent them from missing valuable opportunities.

We end this paper by proposing some future research avenues. Future studies could examine how to adapt theory and research designs to better measure the dynamic nature of evolving societal norms. Although social role theory contains some dynamism by suggesting that when changes in the roles that men and women play in the world occur, stereotypes about men and women will shift as well, it probably remains too dichotomous since gender, as a universal characteristic, might be too broad.

While we intentionally framed our study in the context of a gender-neutral industry, future work could explore whether the societal changes that we identify are occurring in other industries as well, especially those that are more stereotypically masculine (e.g. technology, manufacturing, or construction). The current interest of this research avenue is also highlighted by recent evidence suggesting that female entrepreneurs do well in terms of obtaining funding even in traditionally male-stereotyped sectors (Seigner, Milanov, and McKennedy 2022). On the other hand, whether a feminine appearance is beneficial, or even expected, in an industry framed as stereotypically feminine (like a hair salon or spa), remains to be confirmed by future studies.

Given that the images selected for this study (of both men and women) were intentionally framed at about 35–39 years of age, varying the age of the entrepreneurs may be an additional research avenue to complement the findings in this study. The negative effect reported in the present study may only hold for young entrepreneurs, but not for older individuals who may be perceived as more experienced even when wearing feminine adornments. Alternatively, extending the negative effect of feminine adornments to more experienced entrepreneurs would emphasize the magnitude of the above-mentioned shift in perceptions relating to female entrepreneurs.

Cultural norms regarding feminine appearance might also play a role and future work could be conducted across cultures to examine this question more in depth. As Cheraghi, Wickstrøm Kent, and Klyver (2019, 23) argue, 'in more gender-egalitarian societies, more equal gender roles provide greater scope for both women's and men's participation in entrepreneurship'. On the other hand, female entrepreneurs in more masculine societies with stronger gender role distinctions may experience stronger bias than identified in our work. In such contexts, women may benefit from unique strategies to overcome gender bias as suggested by Wiig, Schou, and Hansen's (2024) recent work on female entrepreneurs in China, a high masculinity society (Hofstede 2001) ranking low on gender egalitarianism (GLOBE 2020).

Future studies could also look at more than physical appearance and examine facial expressions. Such work has already been initiated by Davis et al. (2021), who found that, in the context of crowdfunding, female entrepreneurs benefitted from displaying masculine facial expressions of anger or disgust. Additional work could explore other facial expressions, as well as the interaction between gender-congruent (vs. -incongruent) expressions and wearing feminine adornments (vs. not wearing feminine adornments).

Whether the association between gender or feminine adornments and the perceptions examined in the present study occur under conditions of automaticity⁴ (which would emphasize the strength of the mechanisms) also warrants future examination. This could be done using widely recognized techniques in cognitive psychology, such as the implicit association task (Fazio and Olson 2003; Greenwald et al. 2009) or a semantic priming procedure combined with a lexical decision task (Fazio 2001; Klauer and Musch 2003; Pleyers 2021).

Finally, in line with research in social psychology and neuroscience, the prototypicality of adornments and/or faces when it comes to entrepreneurship is certainly a question of interest. Which faces or adornments (or absence thereof) may be a more prototypical representation of female entrepreneurs in people's minds is an issue that requires additional research.

Notes

1. Cohen's d effect size measure. A commonly used interpretation is to refer to effect sizes as small ($d = 0.2$), medium ($d = 0.5$), and large ($d = 0.8$), based on benchmarks suggested by Cohen (1988); see also Lakens (2013).
2. While we only discuss women's appearance, when comparing men to women, Brooks et al. (2014) found physically attractive men to be more persuasive in their pitches to investors, compared to women, as well as their less attractive male counterparts.
3. Partial eta squared, as an appropriate as measures of effect size for repeated measures ANOVA.
4. Automaticity may involve different features, such as being uncontrolled and unconscious, and requiring little time and little (or no) attentional capacity (for a detailed discussion of this concept, see Corneille and Hütter 2020; Moors 2016).

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Appendices

Appendix A.

Study 1 Posters

Study 1: Image 1



Study 1: Image 2



Study 1: Image 3



Study 1: Image 4



Appendix B.

Item scales

- | | |
|--|--|
| <p>A Items relating to perceptions of the companies and future success
<i>Do you intuitively feel that this start-up ...</i></p> <ul style="list-style-type: none"> • Inspires confidence • Is welcoming • Seems to have a smart idea • Seems innovative • Deserves financial support • Will perform well • Will be managed properly | <p>Measured on 7-point scale from 'Not at all' (1) to 'Definitely' (7)</p> |
| <p>B Items (opposite endpoints) relating to perceptions towards the founders
<i>Intuitively, for the following start-up, do you feel that this individual who founded it is rather ...</i></p> <ul style="list-style-type: none"> • Incompetent – Competent • Submissive – Dominant • Unintelligent – Intelligent • Cold – Warm • Dishonest – Honest • Unsympathetic – Sympathetic | <p>Measured on 7-point scale with the two endpoints (1 and 7) mentioning the opposite adjectives</p> |
| <p>C Instructions for the funding task
<i>Imagine you are an investor and you have to distribute €100,000 between these different start-ups. How would you proceed? For each of the four start-ups, indicate a number between 0 and 100, corresponding to the thousands of euros you would allocate to the start-up. The sum for the four start-ups should therefore correspond to 100.</i></p> | <p>Distribution task (associating each start-up with an amount of money)</p> |

Appendix C.

Study 2 Posters

Study 2: Image 1



Study 2: Image 2



Study 2: Image 3



Study 2: Image 4



Study 2: Image 5



Study 2: Image 6



Study 2: Image 7



Study 2: Image 8



Appendix D.

Study 3: Additional questions concerning the profile of the professional participants

Items	Response options
<i>Have you ever invested in a business (other than your own, if you have one)?</i>	• Yes, as a personal investment (with your own money) • Yes, on behalf of a business • No
<i>How many businesses have you invested in, in total?</i>	[Number provided]
<i>Approximately how many years of investment experience do you have in total?</i>	[Number provided]
<i>Do you currently hold a senior management or executive role in a company?</i>	• Yes • No
<i>What is the primary field of your education?</i>	• Management/Economics • STEM (Science, Technology, Engineering, Mathematics) • Law • Social or Human Sciences • Other